

peasant towards entomologists:—*Peasant woman*: “Bonjour, madame, avez-vous beaucoup ramassé?” *Entomologist*: “Un peu, madame.” *Peasant*: “Qu’est-ce que vous faites avec ces papillons—là?” *Entomologist*: “Pour faire collectionne.” *Peasant*: “Eh bien! Pourquoi? Pour manger?” (très sérieusement)!!

Ants and *Platyarthus hoffmanseggii*.

By C. CRAWLEY, B.A., F.E.S.

It is generally stated by entomologists that ants take no notice whatever of the small white crustaceans that live in their nests. The following notes will show that under certain circumstances the ants interfere with their guests, and generally seem aware of the presence of strange ones.

It must first be noted that the *Platyarthri* themselves often shun contact with their hosts. If a *Platyarthrus* be observed carefully in an artificial nest, it will be noticed that it turns aside whenever it touches an ant; and when, as often happens, an ant steps on the back of a *Platyarthrus*, the latter remains motionless for a few seconds before hurriedly moving away. The ants also often turn round with open mandibles when a *Platyarthrus* passes close to them.

In August, 1896, an ant (*Lasius niger*) was observed, while walking about the nest, to rest her forefeet on a *Platyarthrus*. The latter raised its tail, and the ant started back and went away. A similar thing was noticed not long after, in the same nest. Also in September, 1896, a *L. niger* was seen lifting a *Platyarthrus* that had been introduced from a nest of *L. flavus*, and a few minutes later another of these strangers, on being examined by an ant, raised its tail, and the ant immediately went away. Another stranger, on entering the nest, was met with every appearance of hostility.

Again, on August 12th, 1897, I put two fullgrown *Platyarthri* from a nest of *L. flavus* into one of *L. niger*. Soon after an ant picked up one of them by the edge of its shell, and carried it to the door of the nest, then dropping it. The *Platyarthrus* ran back into the nest, and no more notice was taken of it.

On July 11th, 1898, I brought some *Platyarthri* from a nest of *L. flavus* in Surrey, and put them into a nest of *L. niger* taken in Oxfordshire. The ants attacked them, killing one and subsequently eating it, and driving all the rest from the nest. (This nest of *L. niger*, as well as the others mentioned above, possessed *Platyarthri* of its own). A few weeks later I put some from a strange nest of *L. niger* in the neighbourhood into my nest of *L. niger*. The ants attacked them at first, but eventually desisted, and the *Platyarthri* were allowed to remain unmolested, with the exception of one, slightly injured in capture, which was devoured. Three days afterwards this nest remained too long in the sun, whose heat through the glass cover killed all the *Platyarthri*. The ants dismembered the dead bodies and used them as food. To replace these *Platyarthri*, I transferred several the following day from another nest of the same species of ant. These *Platyarthri* were examined by the ants, but not molested.

Again, on September 22nd, 1899, I put three *Platyarthri* from a nest of *Myrmica scabrinodis*, into a nest of *L. niger*. On visiting the

nest five hours later, I found all the *Platyarthri* dead and outside the nest.

All the *Platyarthri* in a nest of *M. scabrinodis* were found outside the nest dead, many being in a mangled condition, on December 14th, 1899, after a sharp frost. Those in the other nests exposed to the same conditions, lived all through the winter.

In March, 1900, I saw a *Lasius umbratus* attempt to seize a *Platyarthrus* in her mandibles. It was one of those belonging to the nest. Some specimens introduced in February, 1903, from a nest of *L. flavus* into one of *L. niger*, were attacked at first, but not for long. I then put some into a nest of *Formica sanguinea*, but these ants took no notice of them whatever.

On May 19th, 1908, I put five *Platyarthri* from a nest of *M. scabrinodis* into a nest of *L. flavus*. The ants attacked them, and the *Platyarthri* seemed reluctant to enter the nest, even when no ants stopped them. On returning a few hours later, I found three outside the nest, the other two not being visible. I put these three into the nest several times, but they came out again of their own accord each time, though the ants no longer took any notice of them. The next day they were still outside. I put one into a nest of *M. ruginodis*. It remained motionless while two workers examined it, and then left the nest.

Two *Platyarthri* from one nest of *L. niger* were put into another nest of the same species on May 9th, 1909, and were both attacked, one being carried some distance. The following day I saw an ant carry a dead *Platyarthrus* out of the nest.

The last case recorded was in November, 1909, when some *Platyarthri* were introduced from a nest of *L. flavus* into another nest of *L. flavus* and a nest of *L. niger* respectively. One was attacked for a moment by a *L. flavus*, but those put into the nest of *L. niger* were unmolested.

As a general rule I found *L. flavus* receive *Platyarthri* from nests of its own species, and from nests of *L. niger* and others, without taking any notice of them.

These small blind woodlice pass their whole existence in ants' nests, and when about to moult or produce offspring, are found in small cells of earth made in the walls of the nest, where they remain for some time, finally breaking their way out. I have never seen the *Platyarthri* actually constructing these cells, though I have seen the ants carefully plastering earth round them. In one case the ants buried the *Platyarthrus* so deep that I doubt whether it could ever have broken out without assistance. Two or three young ones are sometimes left by the parent sealed up in an earthen chamber after she has herself left it. On one occasion recently, I observed two fighting, butting one another with their heads, till the arrival of an ant separated them.

Notes on the Lepidoptera of the Scottish Highlands.

By DOROTHY J. JACKSON.

I am able this year to add a good many species to the list published at intervals in the *Ent. Record*, vol. xxi., and, as many of them seem to be unrecorded from such northern localities, perhaps the